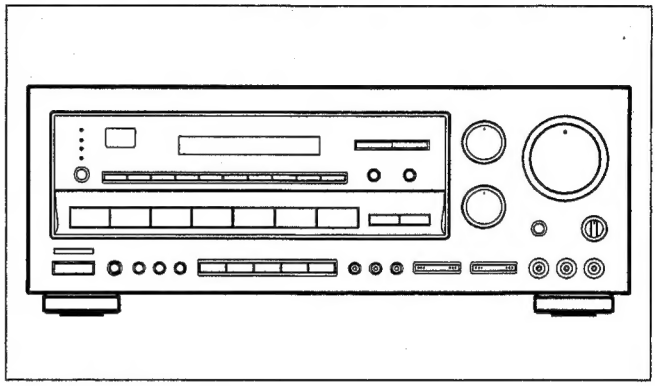
TEAC

AG-V8500

Audio/Video Surround Receiver



Thanks for buying a TEAC.
Read this manual carefully to get the best performance from this unit.

Nous vous remercions pour l'achat d'un appareil TEAC.
Lire ce manuel avec attention pour obtenir les meilleures perfor-mances possibles de cet appareil.

Vielen Dank für den Kauf dieses TEAC-Geräts.
Bitte lesen Sie diese Anleitung sorgfältig durch, um die Leistungs-fähigkeit dieses Geräts optimal nutzen zu können.

Grazie per aver acquistato un prodotto TEAC.
Leggere attentamente questo manuale per ottenere le migliori prestazioni da questo apparecchio.

Enhorabuena por la adquisición de un TEAC.
Lea detenidamente este manual a fin de obtener el mejor rendimiento de esta unidad.

ENGLISH
FRANÇAIS
DEUTSCH
ITALIANO
ESPAÑOL

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

This appliance has a serial number located on the rear panel. Please record the model number and serial number and retain them for your records.
Model number _____
Serial number _____

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CONTENTS

PRECAUTIONS

Read This Before Operating

- Choose the installation location of your unit carefully. Avoid placing it in direct sunlight or close to a source of heat. Also avoid locations subject to vibrations and excessive dust, heat, cold or moisture.
- The ventilation holes should not be covered. Make sure there is at least 20 cm (8 inches) of space above and at least 5 cm (2 inches) of space beside the amplifier/receiver. Do not place a CD player or other equipment on top of the amplifier/receiver.
- Do not open the cabinet as this might result in damage to the circuitry or electrical shock. If a foreign object should get into the set, contact your dealer.
- When removing the power plug from the wall outlet, always pull directly on the plug, never yank the cord.
- Do not attempt to clean the unit with chemical solvents as this might damage the finish. Use a clean, dry cloth.
- Keep this manual in a safe place for future reference.

IMPORTANT (for U.K. Customers)

DO NOT cut off the mains plug from this equipment. If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain an appropriate safety approved extension lead or consult your dealer.

If nonetheless the mains plug is cut off, remove the fuse and dispose of the plug immediately, to avoid a possible shock hazard by inadvertent connection to the mains supply.

If this product is not provided with a mains plug, or one has to be fitted, then follow the instructions given below:

IMPORTANT. DO NOT make any connection to the larger terminal which is marked with the letter E or by the safety earth symbol ⏚ or coloured GREEN or GREEN-and-YELLOW.

The wires in the mains lead on this product are coloured in accordance with the following code:

BLUE: NEUTRAL
BROWN: LIVE

As these colours may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

When replacing the fuse only a correctly rated approved type should be used and be sure to re-fit the fuse cover.

IF IN DOUBT — CONSULT A COMPETENT ELECTRICIAN.

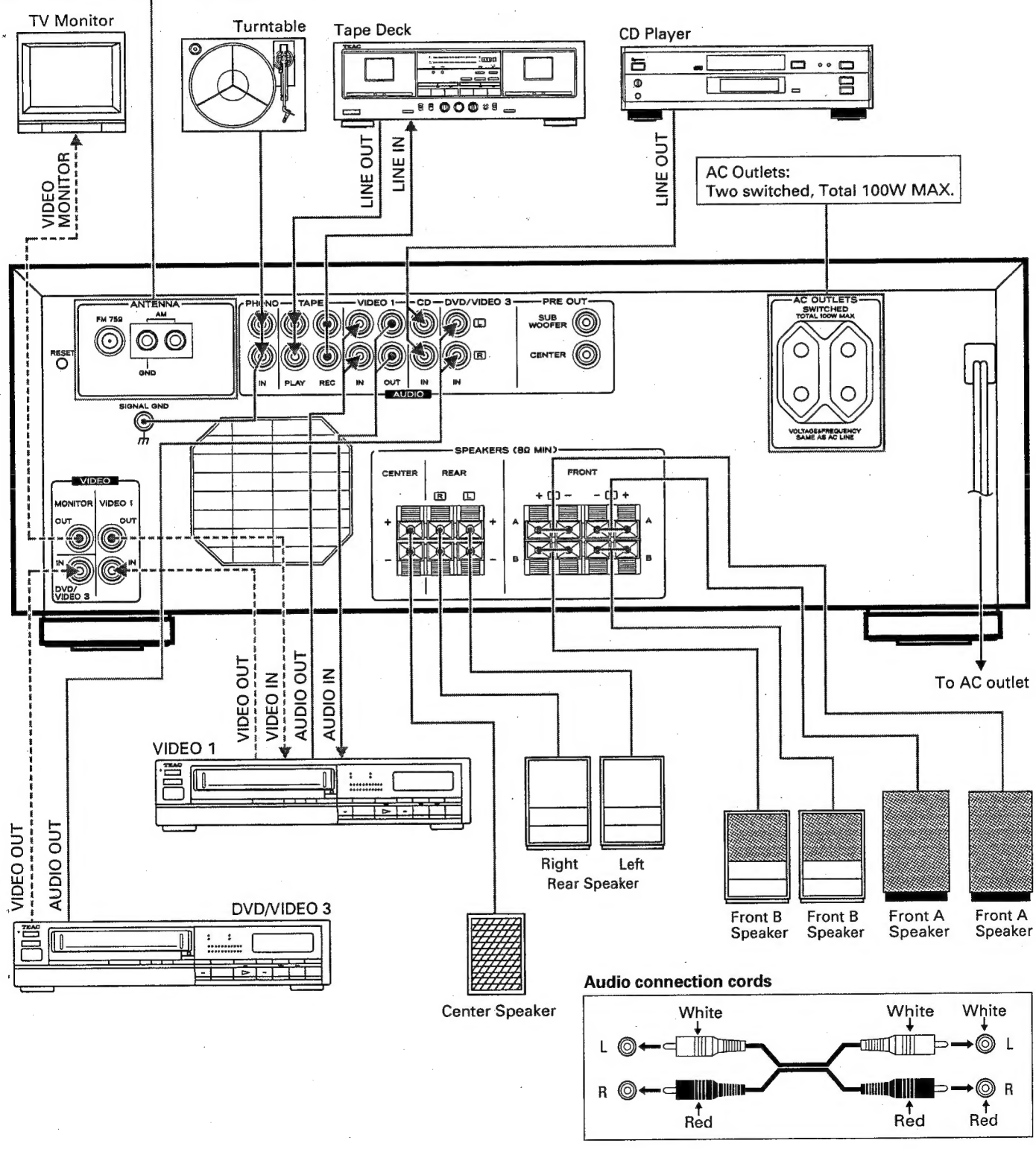
CONNECTIONS

System Connections

——— : Audio signal
- - - - : Video signal

CAUTION: Do not plug the power cord of any component into AC outlets and do not turn their POWER switches on until all connections have been performed.

Refer to "Antenna Connections" on pages 4-5.



Audio connection cords

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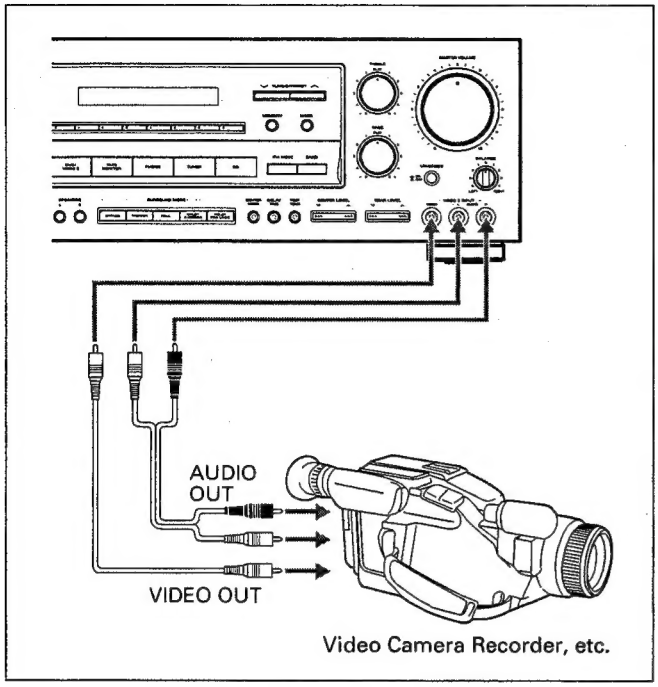
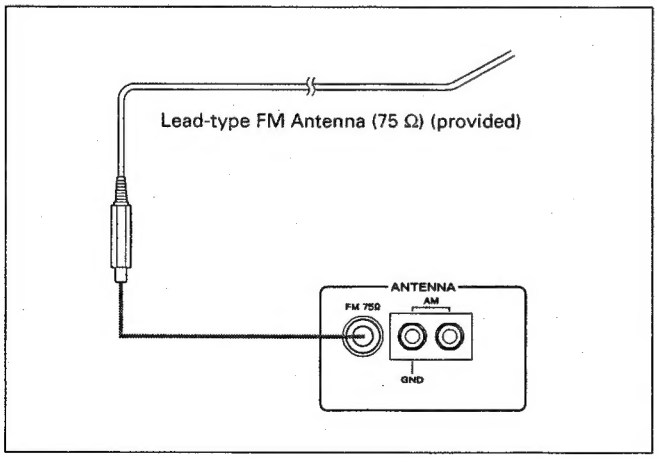
VIDEO 2 INPUT Jacks



Antenna Connections

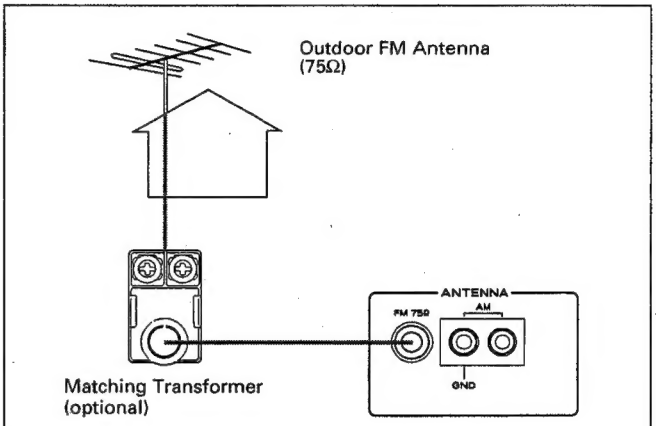
FM Indoor Antenna

If you live reasonably close to a transmitter and want to use the provided lead-type FM antenna, you will have to connect it direct to the "FM 75Ω" socket.
Fit the metal sleeve of the lead-type antenna over the core (center) conductor of the "FM 75Ω" socket, extend the lead and fix it to a window frame or wall with thumbtacks, or the like, where reception is best.



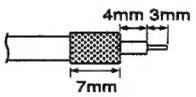
FM Outdoor Antenna

In an area where FM signals are weak, it will be necessary to use a 75-ohm unbalanced-type outdoor FM antenna using the optional matching transformer, as shown. Generally, a 3-element antenna will be sufficient; if you live in an area where the FM signals are particularly weak, it may be necessary to use one with 5 or more elements.
Connect the coaxial cable of the antenna to the matching transformer as shown. After completing connection, plug the transformer into the "FM 75Ω" socket.

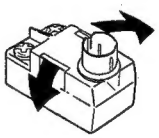


How to connect a coaxial cable to the matching transformer

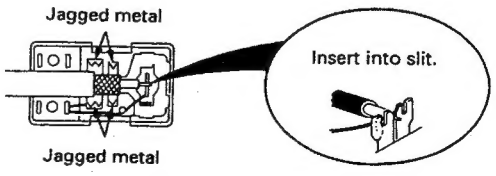
① Strip the cable and dress it as shown.



② Press both side tabs outward to remove the cover.



③ Wrap the core conductor around the central metal fixture as shown. Crimp the jagged metal fixtures so they hold the braided portion using pliers, etc. Put the cover back in place.



AM (MW) Antenna

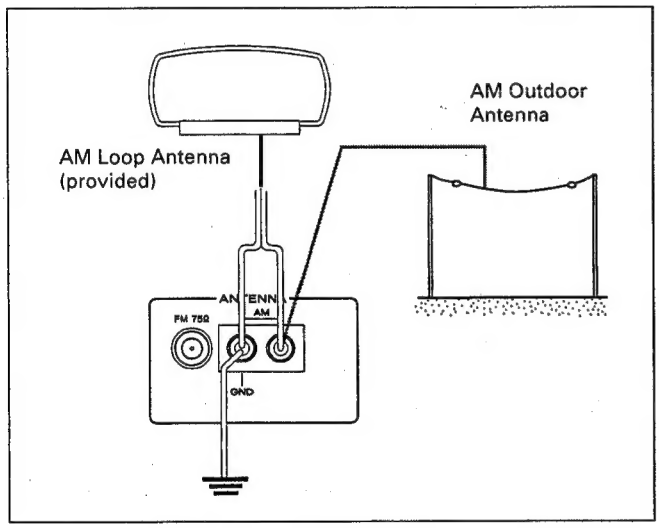
■ AM Indoor Loop Antenna

A high-performance AM loop antenna provided with the receiver is sufficient for good reception in most areas. Connect the loop antenna's wires to the AM antenna terminals as shown. Place the antenna on a shelf, for example, or hang it on a window frame, etc., in the direction which gives the best reception, as far away as possible from the entire system, speaker cords and the power cord, to prevent unwanted noise.

■ AM Outdoor Antenna

If the AM loop antenna provided does not deliver sufficient reception (because you are too far from the transmitter or in a concrete building, etc.), it may be necessary to use an outdoor AM antenna. Use an insulated wire more than 15 ft (5 m) long, strip one end, and connect this to the terminal as shown. The antenna wire should be strung outdoors or indoors near a window. For better reception, connect the GND terminal to a reliable ground.

Note: Even when using an outdoor AM antenna, do not disconnect the AM loop antenna.



Speaker Connections

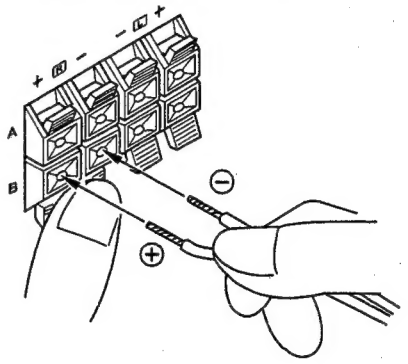
Caution:
To avoid damaging the speakers by inputting a sudden high-level signal, be sure to switch the power off before connecting the speakers.

Connect each speaker to the corresponding speaker terminals, as desired. For "Speaker Installation", refer to page 17.

Notes:

- When using the rear speakers, be sure to connect them to both channels (L and R). If a speaker is connected to only one channel, no sound will be heard.
- Use speakers with a nominal impedance of 8 ohms or more.

How to connect the speaker cords



Press the lever, insert the stripped and twisted end (approx. 10 mm) of the cord, then release the lever so that the cord is held securely.

Power Cord

Be sure to connect the power cord to an AC outlet which supplies the correct voltage, as set by the voltage selector.

AC OUTLETS

SWITCHED:
This socket switches on and off as you turn on and off the amplifier.

Caution:
The total power consumption of the components connected to the AC OUTLETS must not exceed 100W.

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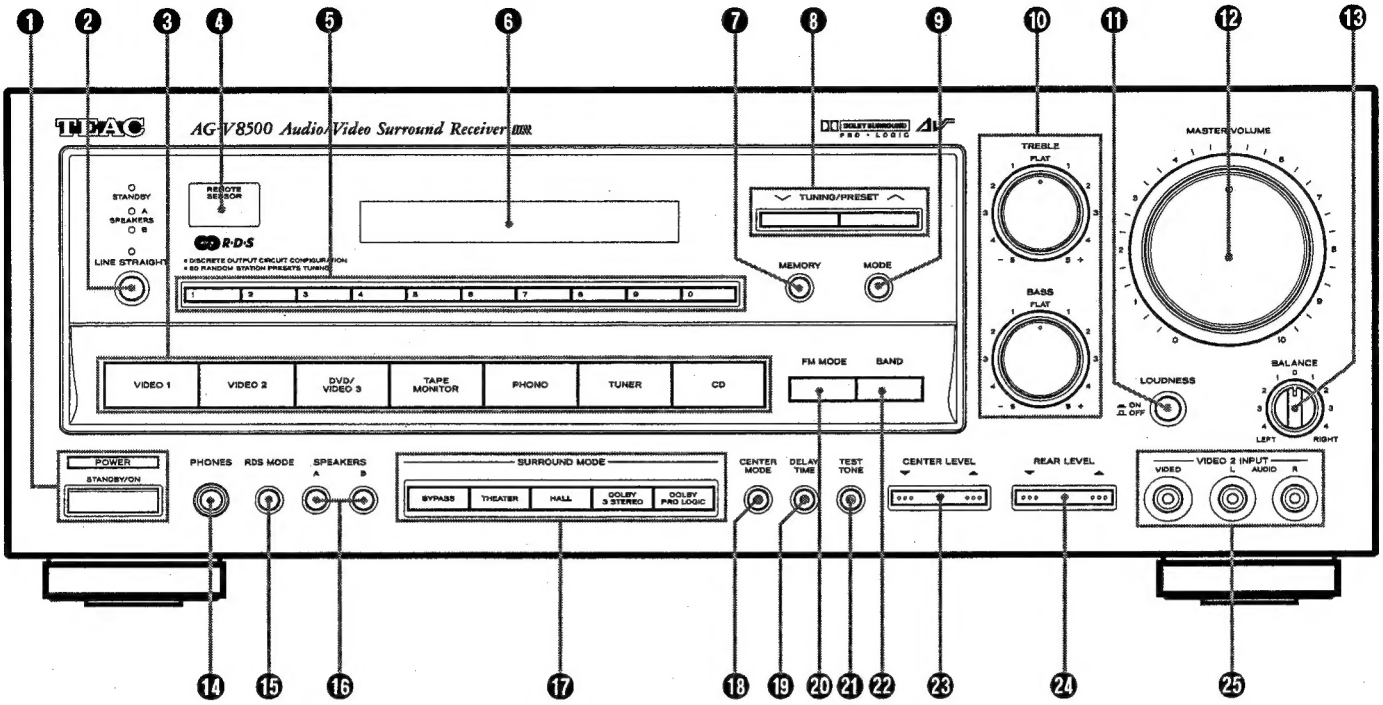
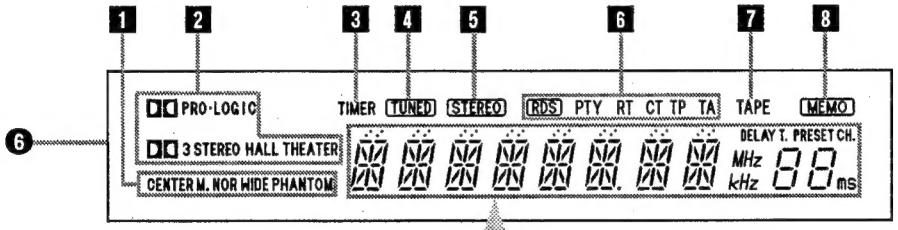
CONTROLS AND INDICATORS

■ Front Panel





Example:

9 FM 94.80 MHz

AM 1422 kHz

10 VIDEO 1

C 0

11 PRESET CH. 30

Example:

12 SLEEP-90

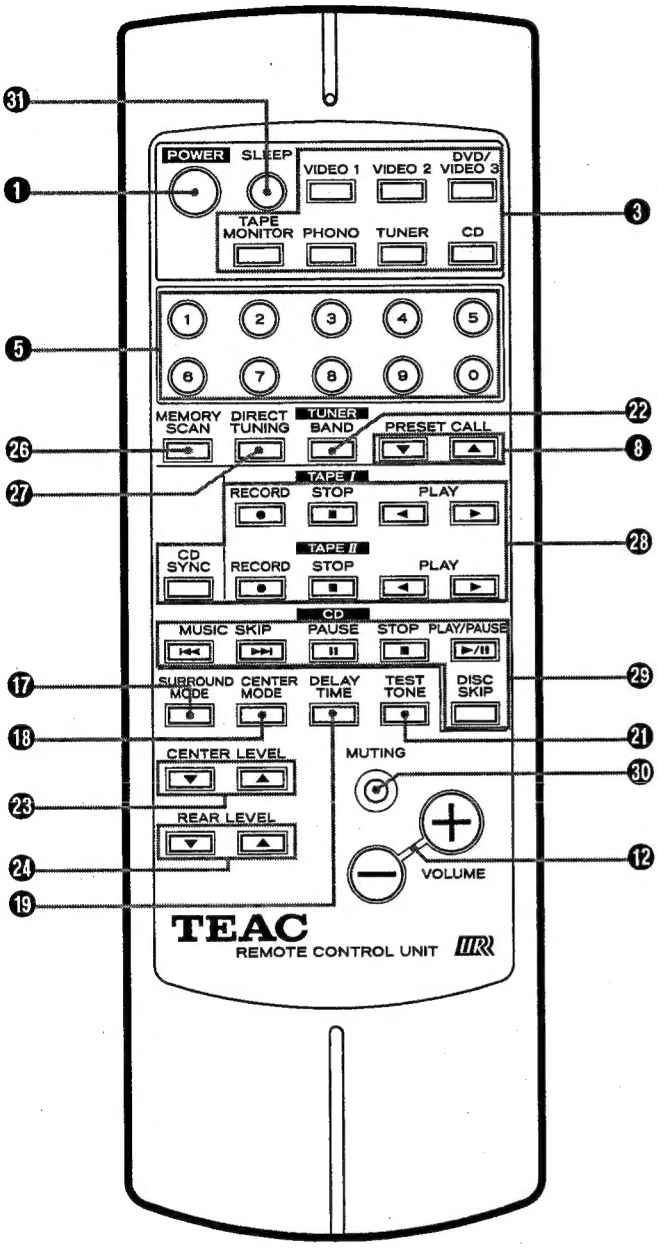
13 DELAY DELAY T. 30 ms

14 TEST-Lch

15 Cch-01dB

16 Sch 03dB

■ Remote Control Unit



Certain buttons on the remote control unit and on the front panel of the receiver have the same or similar functions and have the same reference numbers.

- The power is turned on/off (standby) by pressing the POWER button on the remote control unit in standby mode.

❶ Main POWER Switch and STANDBY/ON Button
❷ LINE STRAIGHT Button
❸ Source Selector Buttons
❹ REMOTE SENSOR Window
❺ Numeric Keys
❻ Multi-Function Display
❼ MEMORY Button
❽ TUNING /PRESET Buttons
❾ MODE Button
❿ BASS and TREBLE Controls
⓫ LOUDNESS Button
⓬ MASTER VOLUME Control (VOLUME +/– Buttons)
⓭ BALANCE Control
⓮ PHONES Jack
⓯ RDS MODE Button
⓰ SPEAKERS Select Buttons
⓱ SURROUND MODE Buttons
⓲ CENTER MODE Button
⓳ DELAY TIME Button
⓴ FM MODE Button
㉑ TEST TONE Button
㉒ BAND Selector Button
㉓ CENTER LEVEL DOWN/UP Buttons
㉔ REAR LEVEL DOWN/UP Buttons
㉕ VIDEO 2 INPUT Jacks
㉖ MEMORY SCAN Button
㉗ DIRECT TUNING Button
㉘ TAPE Deck Operation Buttons
㉙ CD Player Operation Buttons
㉚ MUTING Button
㉛ SLEEP Button

1 CENTER MODE Indicators
2 SURROUND MODE Indicators
3 TIMER Indicator
4 TUNED Indicator
5 STEREO Indicator
6 RDS MODE Indicator
7 TAPE Monitor Indicator
8 MEMORY Indicator
9 BAND/FREQUENCY Display
10 Source Display
11 PRESET Channel Display
12 SLEEP Time Display
13 DELAY Time Display
14 TEST TONE Display
15 CENTER LEVEL Display
16 REAR LEVEL Display

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AUDIO OPERATIONS

Note:
The following points apply throughout the "AUDIO and VIDEO OPERATIONS" sections unless otherwise noted.

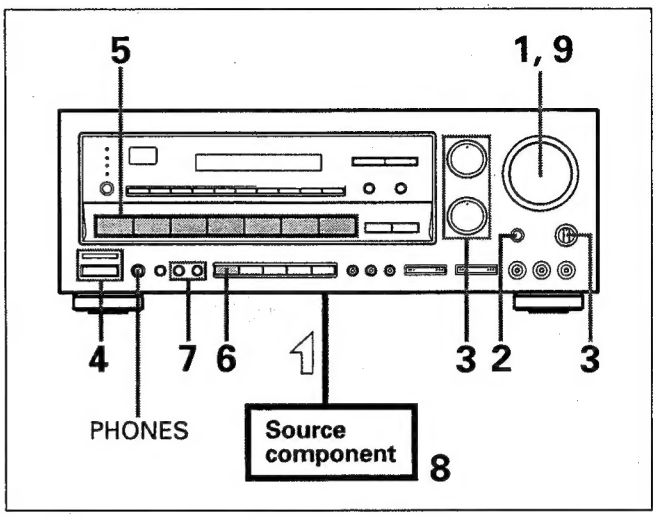
- To simplify explanations, instructions refer to names of buttons and controls on the front panel, making no mention of the use of remote control unit.
- To listen to a source other than tape deck, press the TAPE MONITOR button to the OFF position (the TAPE monitor indicator will not light in the display).

SLEEP Timer Function
This function allows you to preprogram the receiver to switch its own power off automatically. You can then enjoy the audio/video system for a specified amount of time without having to worry about turning the unit off later.
Each press of the SLEEP button changes the time indication by 10 minutes.

SLEEP 90 → SLEEP 80 → ··· → SLEEP 10
(Released condition)

To let the remaining time (until power off) appear on the display while the sleep timer is engaged, press the SLEEP button once.

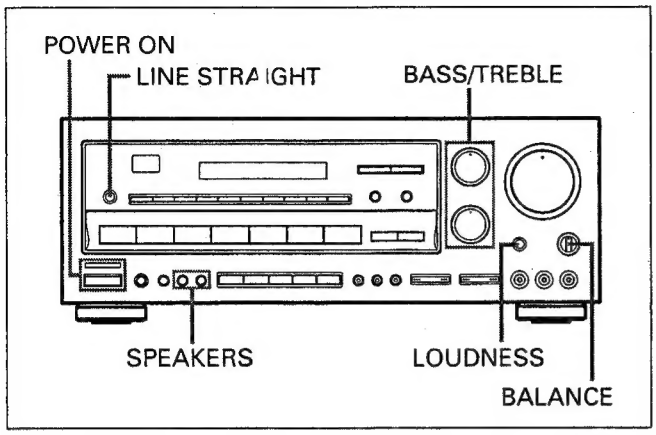
Basic Operations



1. Set the MASTER VOLUME control to "0". This is to protect the speakers from a sudden high-level signal.
2. Set the LOUDNESS button to the OFF position.
3. Adjust the tone as required with the BASS and TREBLE tone controls. Adjust the balance between the left and right channels with the BALANCE control.
4. Press the POWER button to ON.
5. Select the desired source with the source selector buttons.
6. Press the BYPASS button to set the surround mode to OFF.
7. Select the speaker system to be used with the SPEAKERS select buttons.
8. Start playing the source component.
9. Gradually turn up the volume to the required level with the MASTER VOLUME control.

■ Private listening
For private listening, insert the headphones (1/4-inch plug) into the PHONES jack.

Audio Adjustments



Main POWER switch and STANDBY/ON Button
When the main POWER switch is ON:
Press STANDBY/ON button to turn the power on. Press it again to turn the system off (power standby mode). The indicator lights up in power standby mode and goes out when this unit is turned on.

SPEAKERS Select Buttons
These buttons are used to select speaker system A or B.

LINE STRAIGHT Button
When this button is pressed, the signal selected by the source selector buttons is supplied directly to the amplifier circuit, allowing you to listen to tl e source with better sound quality. When the LINE STRAIGHT mode is selected, the BASS, TREBLE controls will be defeated.

BASS/TREBLE Tone Controls
These two tone controls – BASS and TREBLE – can be used to obtain a "flat" frequency response or a tone which suits your individual listening preference. The Bass control adjusts low frequencies and the TREBLE control adjusts the high frequencies.

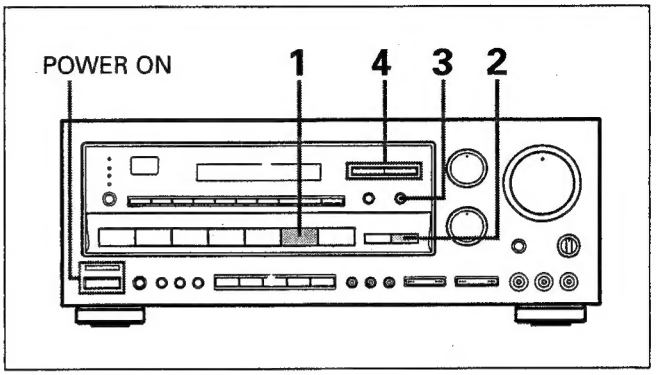
BALANCE Control
This control is used to adjust the balance between the left and right channels. Normally set to the center position.

LOUDNESS Button
This button compensates for the non-linear response of the human ear at low volumes. Set this switch to the OFF position when listening at normal levels.

MUTING Button (on the Remote Control Unit)
Press this to mute (–20 dB) the sound from the speakers and headphones when answering the telephone, etc.
To restore the original volume, press the MUTING button again. While muting is engaged, the MASTER VOLUME level indicator will flicker.

Radio Reception

Auto Tuning



1. Press the TUNER button*.
   * The TUNER button can also be pressed instead when you want to listen to a station selected last by changing from another source.
2. Select the AM or FM by pressing the BAND selector button.
3. Press the MODE button to change to TUNING mode. (The PRESET CH. indicator disappears from the display).
   - This button is used to select Tuning or Preset scan mode.
4. Press the UP or DOWN TUNING button (within 0.5 to 2 seconds). The next station broadcasting at a frequency higher or lower than that of the current station is automatically detected and tuned in.
   - By pressing and holding the TUNING button for longer than 2 seconds, it will continue to control (three times faster than normal speed).

- **FM MODE Button**
  Pressing this button alternates between Stereo mode and Mono mode.
  Stereo
  FM stereo broadcasts are received in stereo and the STEREO indicator lights in the display. Monophonic broadcasts are received in mono. If FM broadcasts with weak signal strength are received, the FM muting (–20 dB) function works automatically to cut the signals, eliminating loud noise.
  Mono
  To compensate for weak FM stereo reception, select this mode. Reception will now be forced monaural, reducing unwanted noise.
- **TUNED Indicator**
  "TUNED" appears in the display when a broadcast is correctly tuned in.

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Manual Tuning

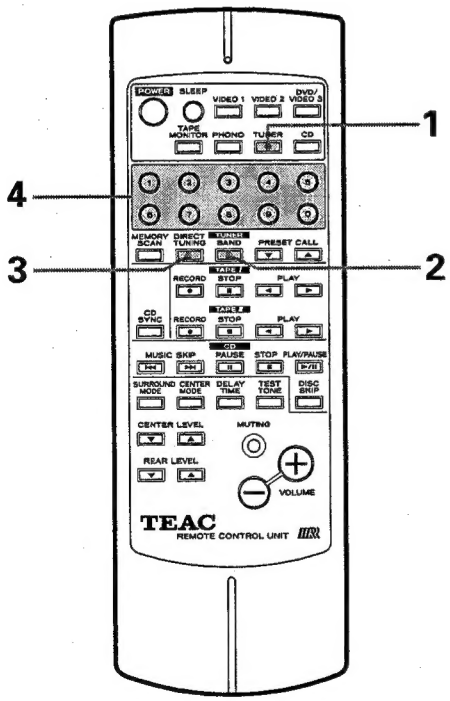
Manual Tuning is generally used to tune to stations broadcasting a signal that is too weak to be received by Auto Tuning.

1. Press the TUNER button.
2. Select the AM or FM by pressing the BAND selector button.
3. Press the MODE button to change to TUNING mode. (The PRESET CH. indicator disappears from the display).
4. When the UP or DOWN TUNING button is pressed momentarily (0.5 second or less), the frequency changes by a fixed step (see STEPS below).

STEPS
FM: 50-kHz steps
AM: 9-kHz steps

Direct Tuning

Using this method, the required frequency is input directly, using the numeric keys.



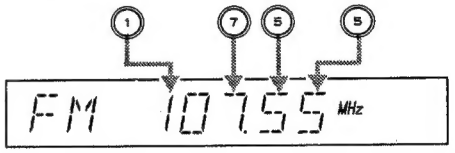
1. Press the TUNER button.
2. Select the AM or FM by pressing the BAND selector button.
3. Press the DIRECT TUNING button on the remote control unit, "ENTER FREQUENCY" appears on the display for a few seconds.

   "FM---.--MHz" or "AM----kHz" appears on the display.
4. Input the frequency of the broadcast you want to hear with the numeric keys.

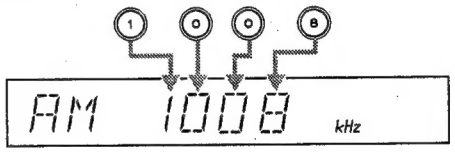
- If you press the DIRECT TUNING button again or without pressing any button for 30 seconds, Direct tuning is released.

FM: 50-kHz steps
AM: 9-kHz steps

Ex.: FM 107.55 MHz



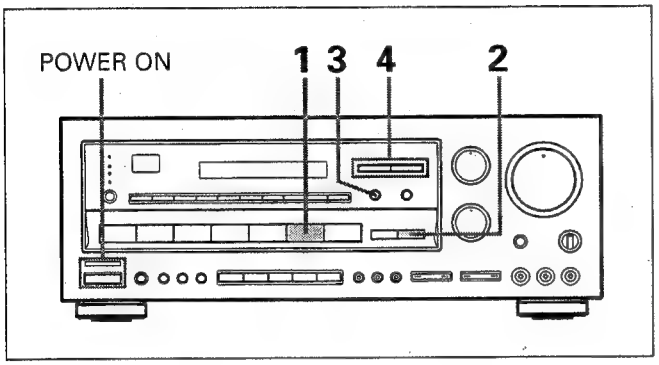
Ex.: AM 1008 kHz



Preset Tuning

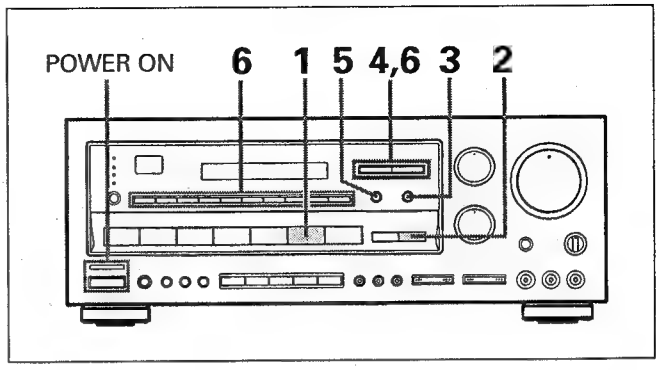
This facility is used to store FM, AM broadcasting from Channel 1 to 30 respectively.

Automatic Memory Presetting



1. Press the TUNER button.
2. Select the AM or FM by pressing the BAND selector button.
3. Press the MEMORY button for a while (for more than 1.5 seconds).
   - 1 The start frequency will show in the display.
     - 87.5 MHz in FM, 522 kHz in AM.
   - 2 The frequency and display will automatically scan.
     - 50 kHz steps for FM, 9 kHz steps for AM.
   - 3 The frequency shown in the display will rapidly change. As each station is located a preset number will appear in the display indicating which preset MEMORY button has been assigned to the station located. The scanning process will continue to operate in this fashion until 30 stations have been found and entered into the preset memory or when there are no more stations to be found on the waveband chosen. The memory indicator will extinguish and let you hear the last station to be memorized.
   - To listen to the memorized station select the band required and press the numeric keys button 1, 2, 3 etc.
4. The last memorized channel of each band will be displayed when Auto Memory is completed. Check the programmed frequencies with PRESET UP, DOWN button.

Manual Memory Presetting



1. Press the TUNER button.
2. Select the AM or FM by pressing the BAND selector button.
3. Press the MODE button to change to TUNING mode. (The PRESET CH. indicator disappears from the display).
4. Select the frequency you want to preset by pressing UP or DOWN tuning button.
5. Press the MEMORY button briefly, MEMORY display will blink at an interval of 1 second.
6. While the MEMORY indicator is lit, press the numeric key(s) to input the channel number in which the data (AM or FM band and frequency) for the broadcast is to be stored (or press the PRESET button then press the MEMORY button again).

■ Recalling Frequencies

Press the numeric key(s) corresponding to the channel number to tune directly to a broadcast.

■ Using the Memory Scan function

When the MEMORY SCAN button is pressed, the preset channels in which frequencies in the band (AM or FM) selected have been stored are scanned at 5-second intervals. When you hear a broadcast you want to listen to, release the Memory Scan function by pressing the MEMORY SCAN button again.

■ "Back-up" memory function

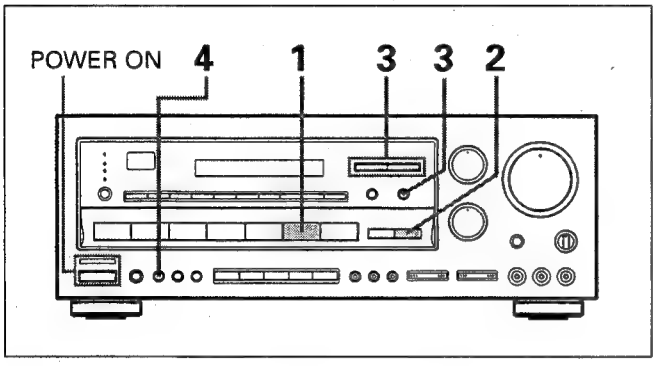
This function conserves the already preset station memories, and "Most-recent" memory function, even in the event of a cut-off of power supply, as when the plug is pulled out of the wall outlet, for 3 days.

ENGLISH

RDS (Radio Data System)

RDS is a broadcasting service which allows stations to send additional information along with the regular radio program signal RDS services can be received only in FM band.

RDS Display



1. Press the TUNER button.

2. Press the BAND button to select FM.

3. Select the RDS broadcasting by use of the MODE button and the TUNING/PRESET buttons.
- The RDS indicator lights in the display.
  This unit receives and displays the following kinds of data.
- PS (Program Service Name): Displays FM station name.
- PTY (Program Type): Program type will be displayed while receiving FM.
- RT (Radio Text): Displays the news of stations composed of up to 64 symbols.
- CT (Clock Time): Displays the information about times provided from the station.
- TP (Traffic Program)
- TA (Traffic Announcement)

4. Press the RDS MODE button.
   Each time you press the button briefly (1.5 sec or less), the modes will change as follows regardless of the current mode.

→ PS → CT → PTY → RT → TA → RDS off

(1) PS mode
- When you select PS with the RDS MODE button, "PS" will blink for about 4 seconds.
- After 4 seconds, PS or a station name will be displayed.

(2) CT mode
- When you select CT with the RDS MODE button, "CT" will blink for about 4 seconds. After 4 seconds, the clock time will be displayed.
- If there is no CT data among received broadcastings, "NO CT" will be displayed.

(3) PTY mode
- When you select PTY with the RDS MODE button, PTY will blink for about 4 seconds. After 4 seconds, the type of received PTY will be displayed. There are 31 kinds of PTY Data as follows.

NEWS	brief annoucements, events, public opinion, reports, actual situations.
AFFAIRS	a kind of suggestion including practical annoucements other than news, documents, discussion, analysis and so on.
INFO	daily information or reference such as weather forecast, consumer guide, medical assistance and so on.
SPORT	sports-related programs.
EDUCATE	educational and cultural information.
DRAMA	all kinds of radio concert and serial drama.
CULTURE	all aspects of national or local culture including religious events, philosophy, social science, language, theatre, and so on.
SCIENCE	programs on natural science and technology.
VARIED	popular programs such as quiz, entertainment, private interview, comedy, satire and so on.
POP M	program on commercial, practical and popular songs, and sale volume of discs, etc.
ROCK M	practical modern music generally composed and played by young musicians.
M.O.R.M	popular music usually lasting for less than 5 minutes.
LIGHT M	classical music, instrumental music, chorus, and light music favoured by non-professionals.
CLASSICS	orchestra including great operas, symphony, chamber music and so on.
OTHER M	other music styles (Rhythm & Blues, Reggae, etc.)
WEATHER	weather reports, forecast
FINANCE	financial reports, commerce, trading

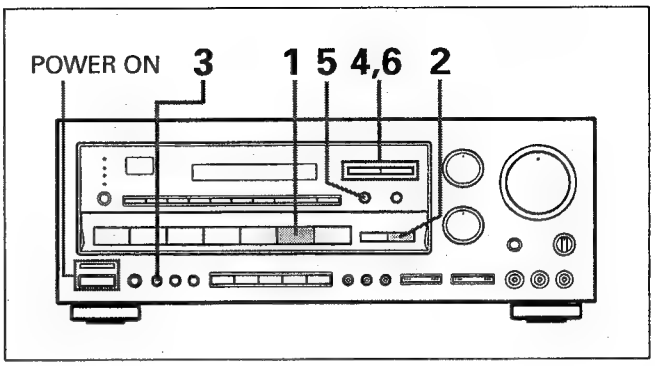
CHILDREN	children's programs
SOCIAL-A	social affairs
RELIGION	religious programs
PHONE-IN	program in which the public expresses its view by phone
TRAVEL	travel reports
HOBBIES	programs concerning recreational activities
JAZZ	jazz music
COUNTRY	country music
NATION-M	national music
OLDIES	music from the so-called golden of popular music
FOLK-M	folk music
DOCUMENT	documentaries
ALARMTEST	
ALARM	this is a program notifying an emergency or a natural disaster.

- If there is no PTY data among received broadcastings, RDS mode will be switched to PS mode automatically.

(4) RT mode
- When you select RT with the RDS MODE button, "RT" will blink for about 4 seconds. After 4 seconds, the data of received RT will be displayed.
- If there is no RT data among received broadcastings, RDS mode will be automatically switched to PS mode.

(5) TA mode (TP Search Function)
- When you select TA by use of the RDS MODE button, "TA" will blink for about 4 seconds. After 4 seconds, TP received broadcasting will be searched with FM frequency increasing in 50 kHz steps.
- If TP received broadcasting is searched, the increase in frequency will stop and it is asked whether TA will be received or not.
- If TP and TA turn off while you are receiving TA, the tuner will search TA broadcasting again with FM frequency increasing in 50 kHz steps.

How to Search For Your Desired Program Using PTY Search



1. Press the TUNER button.

2. Press the BAND button to select FM.

3. Press the RDS MODE button for longer than 1.5 seconds.
   Then "PTY SEEK" will be shown in the display.

4. Select the desired PTY mode by using the TUNING/PRESET (∨/∧) buttons.
   - Select your desired one from among 31 kinds of PTY programs. (The program will blink.)

5. Press the MEMORY button.
   The program indicator is changed to light steadily.

6. Press the TUNING/PRESET UP (∧) or DOWN (∨) button. (Searching will start.)
   - When the PTY mode that you have selected is searched, searching will stop and the PTY mode will be displayed.
   - When you press the TUNING/PRESET (∨/∧) buttons after your desired program is searched, you can continue to search for the same program type by increasing or decreasing the frequency from the current one.
   - If the same program type is not found during PTY Search, it will stop at the beginning frequency.
   - If you want to cancel PTY search while searching, press the RDS MODE button. Searching will stop and search mode will be released automatically.

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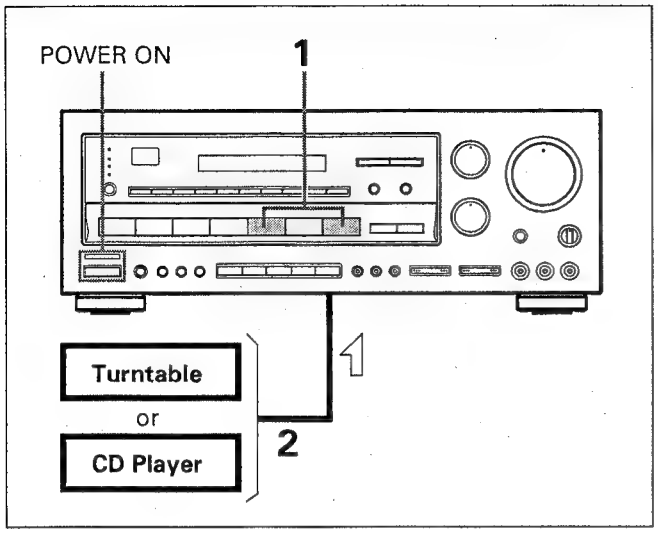
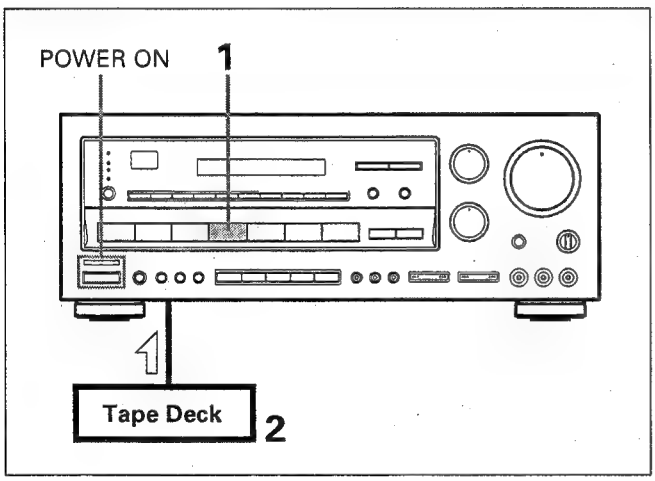
Listening to Records and Compact Discs



1. Press the PHONO or CD button.
2. Play the turntable (with a moving magnet cartridge) or CD player.

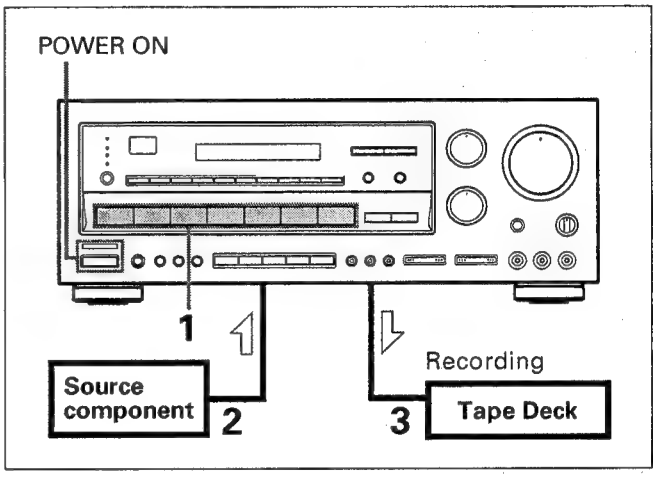
Playing Tapes



1. Set the TAPE MONITOR button to ON; the TAPE monitor indicator will appear in the display.
2. Operate tape deck for playback.

Recording a Source

Recording program source
you can record a program source such as a record or Compact Disc onto a cassette deck connected to the TAPE REC jacks.



1. Make sure the TAPE MONITOR button is set to OFF, then press the source selector button corresponding to the source to be recorded.
2. Play the source.
3. Operate the tape deck for recording.

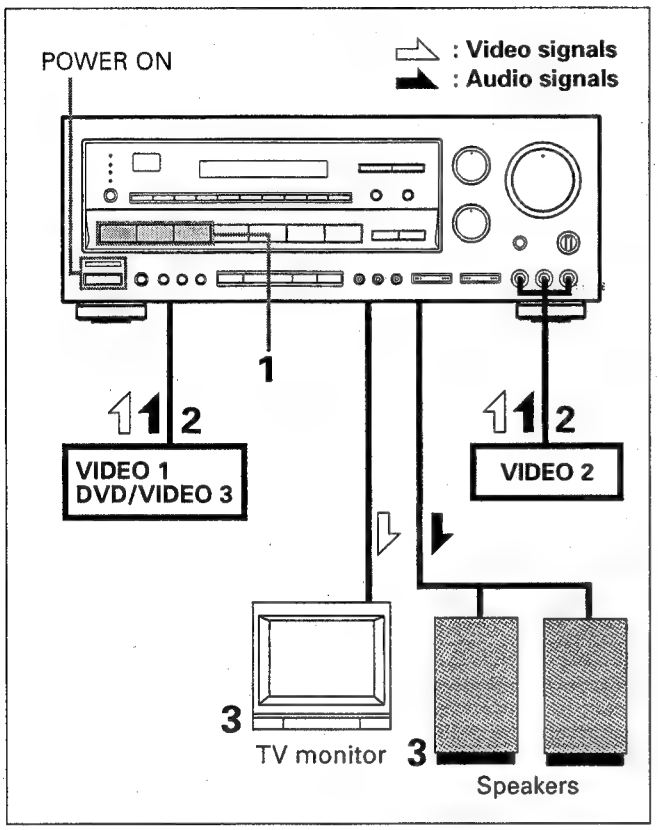
■ Tape Monitoring

If the tape deck has separate record and playback heads, during recording, the recorded sound can be heard from the speakers with the TAPE MONITOR button set to ON.

VIDEO OPERATIONS

Playing Video Sources

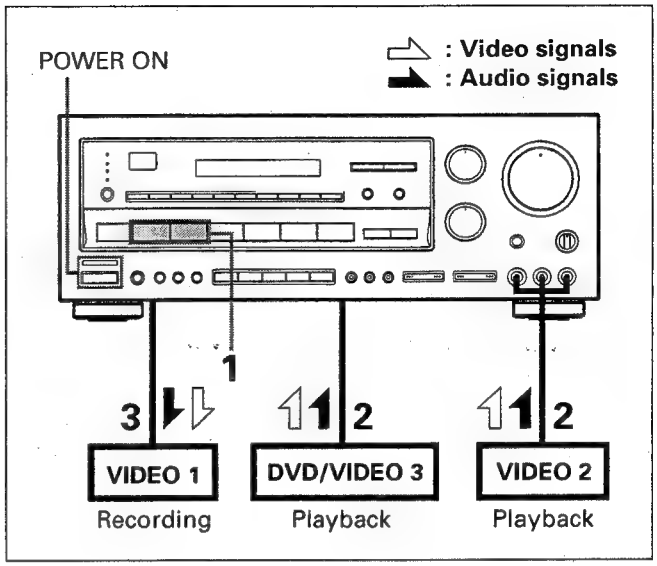
Note:
For playing video software using a certain Surround Effect function, refer to the SURROUND EFFECTS section.



1. Press the VIDEO 1, VIDEO 2 or DVD/VIDEO 3 button.
2. Play the component corresponding to the button pressed.
3. The picture from the video source can be seen on the TV and the sound from the video source will be heard from the speakers.

Recording with a Video Deck

Tape Dubbing (from VIDEO 2 to VIDEO 1)



1. Press the VIDEO 2 or DVD/VIDEO 3 button with the TAPE MONITOR set to OFF.
2. Operate VIDEO 2 or DVD/VIDEO 3 for playback.
3. Operate VIDEO 1 for recording. In this way, the video/audio signals from VIDEO 2 or DVD/VIDEO 3 can be dubbed onto VIDEO 1.

S.A.V.E. (Second Audio Source for Video Editing) SYSTEM Function

This feature lets you replace the sound from a VCR with sound from an AUDIO source such as CD during video signal dubbing.

1. Press the DVD/VIDEO 3 (or VIDEO 2) button and operate DVD or VIDEO 3 (or VIDEO 2) for playback.
2. Select the audio source with the source selector buttons, and then operate the selected audio component for playback.
3. Now you can watch the picture from the video component on the TV, and listen to the sound from the audio component through the speakers.
   Note: Be sure to observe the order of steps 1 and 2.
4. Operate VIDEO 1 for recording. In this way, the S.A.V.E. operation will be completed.

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SURROUND EFFECTS

When you use the surround function, the sound creates a "live" atmosphere such as that experienced in movie theaters and concert halls.

Surround Modes

This unit is provided with the following surround modes, which can be selected using the SURROUND MODE switches.
Select the appropriate surround mode according to the program source.

DOLBY PRO LOGIC Surround

Use this mode when playing movie or music video software which carries the DOLBY SURROUND mark.
This mode provides the effect of being in a movie theater or live concert house-an effect with an intensity which can only be obtained through DOLBY PRO LOGIC SURROUND.
The main feature of DOLBY PRO LOGIC SURROUND is that the separation between the various channels is significantly improved from the 3 dB of previous systems to 26-40 dB. As a result, the effect of the front/back/left/right movement of the sound image, as well as the sense of fixed position in the sound image, is much clearer and more dynamic than before.
In addition, movie dialogue and other sounds which should naturally be heard from the center are output through an independent center channel, providing a high degree of focus for dialogue.

DOLBY 3 STEREO

Front speakers receive rear (surround) speaker signals in addition to front speakers signals. Center speaker works similarly as that of Dolby Pro Logic mode. In this way, you can enjoy playback sound having superior sound positioning.

HALL Surround

When playing recordings of live music, this mode provides a feeling similar to actually being in a concert hall. When this mode is selected, the normal program source is directed to the main speakers and a reverberated sound is directed to the surround speakers.
This mode is suited to program sources which contain a large amount of reverberation.

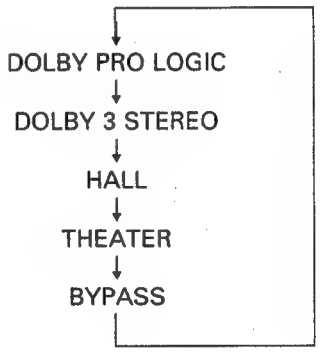
THEATER Surround

This mode provides a three dimensional effect similar to that of movie theater. With this mode, you can enjoy a surround effect similar to Dolby Surround sound even when playing a video program which is not encoded with the Dolby Surround system.

BYPASS

Use this mode when surround effects are not required.

- Each time the SURROUND MODE button on the remote control is pressed, the surround mode changes cyclically, as shown below.



CENTER Mode

There are 3 kinds of the center modes. Select the desired mode suitable to your speaker system.

■ NORMAL Mode

Use this position when the center speaker is a compact speaker which is not capable of fully reproducing bass frequencies below 100 Hz. In this mode, the bass frequencies below 100 Hz are distributed to the front left and right speakers.

■ WIDE Mode

Use this position when the center speaker is an equivalent speaker to the front left and right speakers or when it is capable of fully reproducing bass frequencies below 100 Hz.

■ PHANTOM Mode

Use this position when the center speaker is not used. The center channel sound is distributed to the left and right front speakers.

- Dolby 3 Stereo has only NORMAL and WIDE modes, not PHANTOM mode which Dolby Pro Logic has altogether with the former two modes.

Delay Time

In the surround modes, the sound from the rear speakers should be delayed slightly, relative to that from the front speakers. The optimum delay time will depend on acoustic properties, whether the walls and furnishings reflect or absorb sound, etc.
It is recommended that you try different delay times to obtain the best effect. The delay is digitally synthesized, for the highest sound quality with minimum noise and distortion.
The delay time can be set independently for each surround mode using the DELAY TIME button, with the current setting shown in the display.

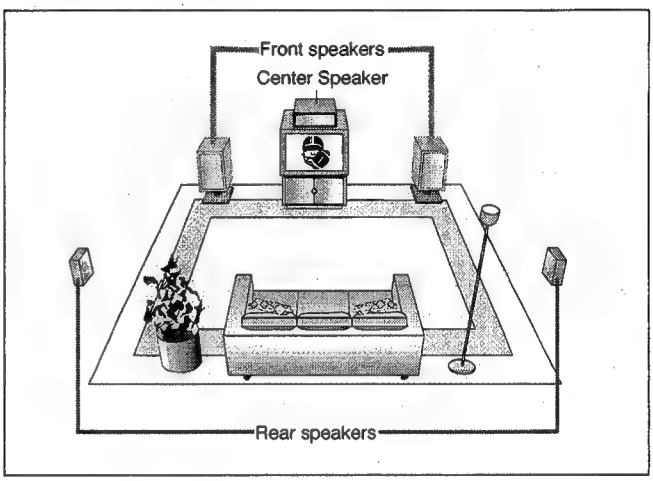
Delay Time Setting

Surround Mode	Adjustable Range
DOLBY PRO LOGIC	15 – 30ms
HALL / THEATER	15 – 50ms

Speaker Positioning

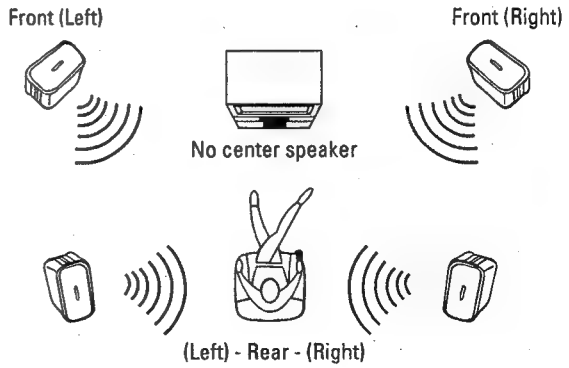
The installation positions of speakers differ according to the size, and acoustics of the listening room. While actually listening to a program source, try various speaker positions to determine which layout provides the best surround effect.

Speaker layout example when using DOLBY PRO LOGIC surround



- For best effect, do not install the rear speakers too far behind the listening position and install them above the level of the listener's ears. It is also effective to direct the rear speakers toward a wall or ceiling to further disperse the sound.
- When not using a center speaker with the DOLBY PRO LOGIC surround function, set the center mode to PHANTOM.

HALL, THEATER Modes



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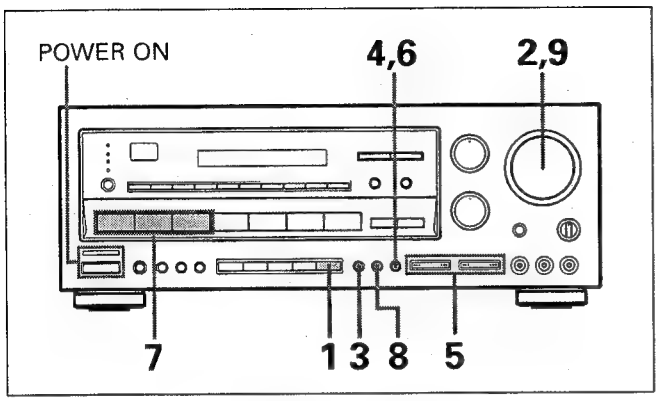
Playing Surround Sound

DOLBY PRO LOGIC Surround



Balancing Relative Volumes among Speakers

1. Press the DOLBY PRO LOGIC button.
2. Set the MASTER VOLUME control to the normal listening level.
3. Press the CENTER MODE button to select the center speaker mode you desire, NORMAL, WIDE or PHANTOM mode.
4. Press the TEST TONE button to send the test tone signal to each speaker in succession as shown below.

   →LEFT→ CENTER→ RIGHT→ REAR→

   Note: When the PHANTOM mode is selected in step 3:

   →LEFT →RIGHT →REAR→

5. Adjust the CENTER LEVEL and REAR LEVEL controls so that test tone volumes are equal on all speakers.
6. Press the TEST TONE button to cease testing.

Adjusting the Delay Time

7. Play the video software with the DOLBY SURROUND mark.
8. Adjust the delay time as desired in 3 steps by pressing DELAY TIME button:

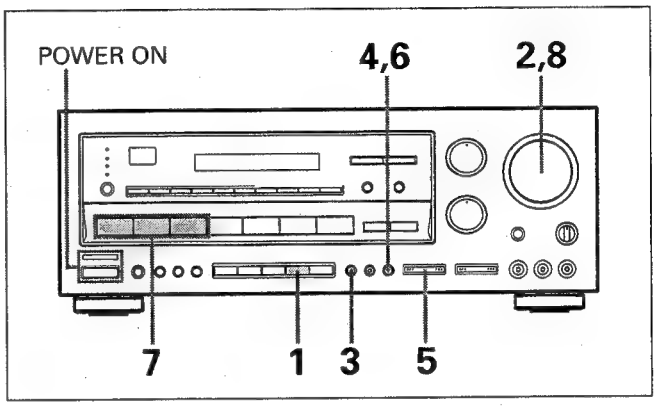
   →15ms →20ms →30ms→

   20msec is standard.

Playing Surround Sound

9. Adjust the MASTER VOLUME control for the most appropriate overall volume.

DOLBY 3 STEREO



Balancing Relative Volumes among Speakers

1. Press the DOLBY 3 STEREO button.
2. Set the MASTER VOLUME control to the normal listening level.
3. Press the CENTER MODE button to select the center speaker mode you desire, NORMAL or WIDE mode.
4. Press the TEST TONE button to send the test tone signal to each speaker in succession as shown below.

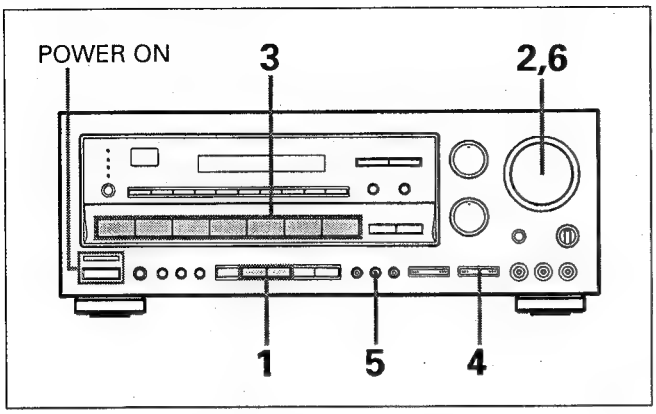
   →LEFT →CENTER →RIGHT→

5. Adjust the CENTER LEVEL controls so that the center speaker sound level is equal to that of the left speaker and then to that of the right speaker.
6. Press the TEST TONE button to cease testing.

Playing Surround Sound

7. Play the video software with the DOLBY SURROUND mark.
8. Adjust the MASTER VOLUME control for the most appropriate overall volume.

HALL or THEATER Surround



Balancing Relative Volumes among Speakers

1. Press the HALL or THEATER button.
2. Set the MASTER VOLUME control to the normal listening level.
3. Play the source component.
4. Adjust the rear speaker volume relative to that of the front speakers as desired.

Adjusting the Delay Time

5. Adjust the delay time as desired in 5 steps by pressing the DELAY TIME button:

15ms → 20ms → 30ms → 40ms → 50ms

Playing Surround Sound

6. Adjust the MASTER VOLUME control for the most appropriate overall volume.

MEMORY BACKUP FUNCTION

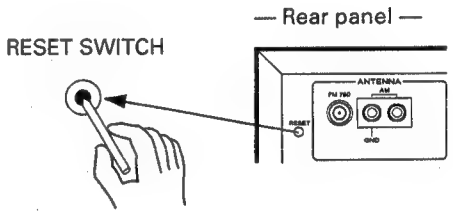
BACK-UP memory

This is the function which preserves the preset memory and most-recent memory functions. In the event of a power failure, or if the power cord of this unit is disconnected from the electric outlet, the back-up memory will preserve the preset memory and most-recent memory functions for as long as approximately 3 days.

To Prevent Erasing the Memory
If the power supply is interrupted for 3 days or longer, the memory settings will be erased.

WHEN TO USE RESET SWITCH

1. When this system is subjected to an electrical shock.
2. When the power is irregular.
   In these cases, try the following (in power standby mode):



Press the RESET switch lightly once or twice with a pencil or a ballpoint pen.

Note: When the RESET switch is pressed, all the memory will be canceled.

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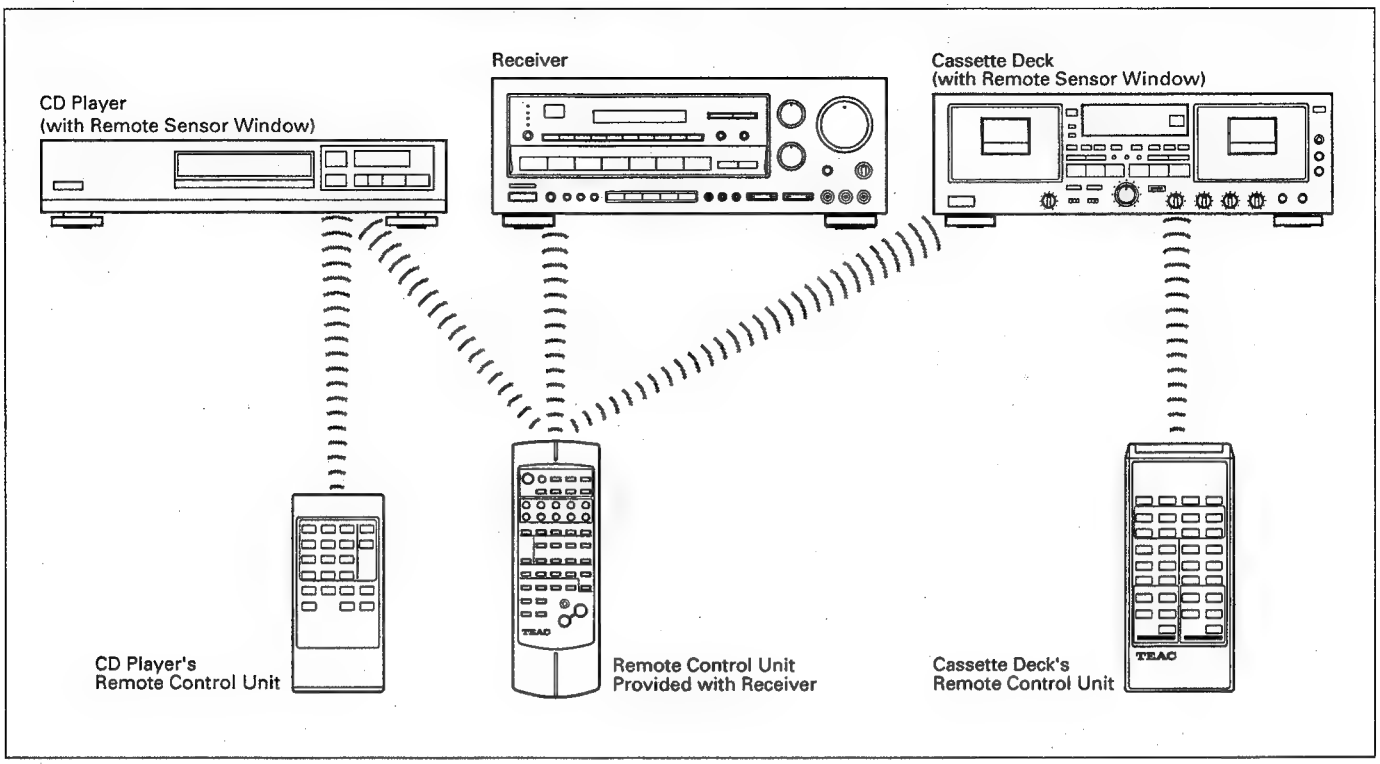
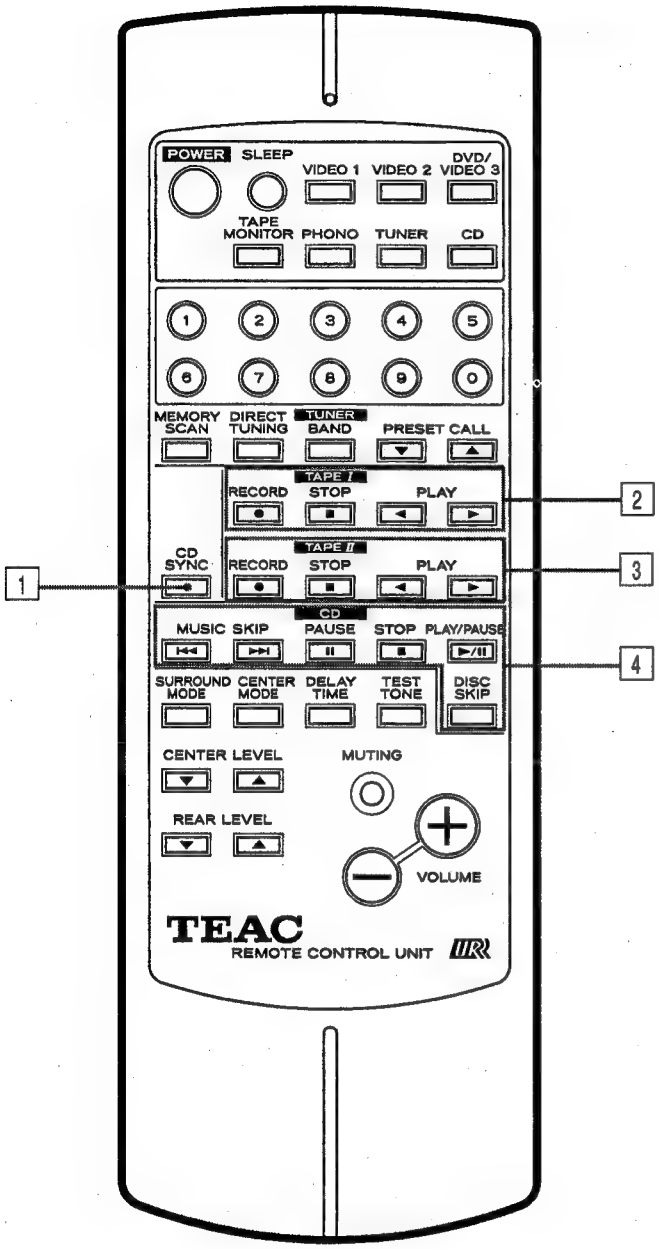
TEAC SYSTEM REMOTE-CONTROLLED OPERATION

Using a CD Player and a Cassette Deck with a REMOTE SENSOR Window



As shown, if the other TEAC components have REMOTE SENSOR windows, the provided Remote Control Unit can remotely control the operations of these other components directly, in addition to the remote control of the receiver. If the other components require operations beyond the basic ones on the provided "UR" remote control unit, use the remote control units provided with the components.

Buttons for the Operation of Other TEAC Components



1 CD SYNC button

When this receiver is used in a system with a TEAC CD Player and a TEAC cassette deck (with full-logic control), it is possible to synchronize the operations of the CD player and cassette deck, so that they can be started at exactly the same time for copying a CD onto a tape.

In this configuration, the CD player's CD/DECK SYNC terminal and the cassette deck's CD/DECK SYNC terminal should be connected using the optional WR-7000 sync cable.

Synchronized operation of the CD player and cassette deck can be started by pressing either the CD SYNC button on the remote control unit or the CD SYNC button on the cassette deck.

2 TAPE I buttons

The TAPE I mechanism of a double-transport cassette deck with full-logic control can be operated using these buttons.

Notes:

- To start recording, simply press the RECORD button; it does not have to be pressed together with PLAY.
- If the TAPE I mechanism of the double-transport cassette deck does not have a recording function, pressing the TAPE I RECORD button will have no effect.

3 TAPE II buttons

The TAPE II mechanism of a double-transport cassette deck with full-logic control can be operated using these buttons. They are also used to operate a single-transport cassette deck with full-logic control.

Note:

- To start recording, simply press the RECORD button; it does not have to be pressed together with PLAY.

4 CD buttons

- **SKIP (⏮,⏭) buttons:** Each time these are pressed, the pickup moves to the beginning of the next tune in either the forward or reverse direction. If held depressed, skipping continues until the button is release.
- **PAUSE (⏸), PLAY/PAUSE (▶/⏸) buttons:** To temporarily stop CD play, press the PAUSE button if the CD player has an independent PAUSE button; press the PLAY/PAUSE button if it has a PLAY/PAUSE button.
- **STOP (■) button:** Press to stop the CD player.
- **DISK SKIP button:** Selects the next disc in a CD auto-changer.

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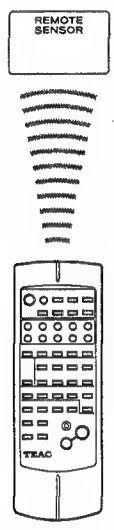
REMOTE CONTROL UNIT

Using the Remote Control Unit

By using the provided remote control unit, the receiver and some other TEAC components used with it can be controlled from your listening position.
To use the remote control unit, point it at the REMOTE SENSOR window of the receiver (or other TEAC component).

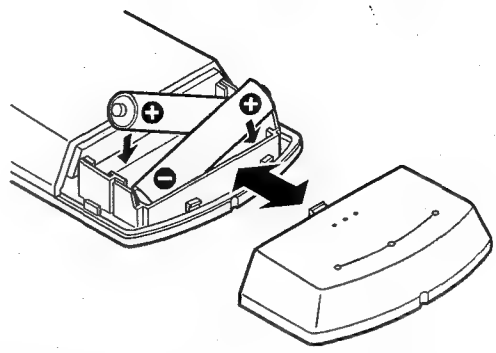


REMOTE SENSOR window of the receiver or other TEAC component

Notes:

- Even if the remote control unit is operated within the effective range, remote control operation may be impossible if there are any obstacles between the unit and the remote control.
- If the remote control unit is operated near other appliances which generate infrared rays, or if other remote control devices using infrared rays are used near the unit, it may operate incorrectly. Conversely, the other appliances may operate incorrectly.

Battery Installation



1. Remove the battery compartment cover.
2. Insert two "AAA" (R03, UM-4) dry batteries.
   Make sure that the batteries are inserted with their positive ⊕ and negative ⊖ poles positioned correctly.
3. Close the cover until it clicks.

■ Battery Replacement

If the distance required between the remote control unit and main unit decreases, the batteries are exhausted. In this case replace the batteries with new ones.

■ Precautions concerning batteries

- Be sure to insert the batteries with correct positive "⊕" and negative "⊖" polarities.
- Use batteries of the same type. Never use different types of batteries together.
- Rechargeable and non-rechargeable batteries can be used. Refer to the precautions on their labels.
- When the remote control unit is not to be used for a long time (more than a month), remove the batteries from the remote control unit to prevent them from leaking. If they leak, wipe away the liquid inside the battery compartment and replace the batteries with new ones.
- Do not heat or disassemble batteries and never dispose of old batteries by throwing them in a fire.

TROUBLESHOOTING

To determine any problem with your receiver, always check the most obvious possible causes first. If any problem still remains after you have checked the items below, consult your nearest TEAC dealer.

Problem	Probable Cause	Remedy
Amplifier		
When listening to the music in stereo, left/right speakers sounds reversed.	Speakers are connected wrongly.	After checking, if needed, connect correctly again.
Low hum or buzzer sound.	Power line of fluorescent light is installed near to wall outlet of this product.	Place this product from electric devices as far away as possible.
Sound is only heard from one channel.	One of the input cords is disconnected.	Connect the input cords securely.
	The BALANCE control is set to one end.	Adjust the BALANCE control.
Sound cut during listening to the music or no sound even though power is ON.	Speaker impedance is less than prescribed for this unit.	After turning off the power and then turning it on again, reduce the volume or change to the regulated speakers.
Tuner		
An unusual hissing noise is heard when listening to the broadcast in stereo, but not heard when listening monaurally.	A slight noise may be heard because the method use for modulation of FM stereo broadcasts is different than that used for monaural broadcasts.	• Try reducing the treble sound by turning the treble controls. • Try changing the location, height and/or direction of the antenna. • Set the FM mode to monaural by pressing the STEREO/MONO button. (Note that the broadcast will then be heard as monaural sound.) • If an indoor antenna is being used, change to an outdoor antenna. • Try using an antenna with more elements.
Noise is excessive in both stereo and monaural broadcasts.	Poor location and/or direction of the antenna.	
	Transmitting station is too far away.	
Sound is distorted and/or the volume level becomes low.	Broadcast signals are being disturbed.	
Excessive distortion in the sound of stereo broadcasts.	Speaker system connections are not correct.	
Surround Effects		
No sound from the rear speakers.	SURROUND MODE switch is set to BYPASS.	Set the switch to the desired surround mode position.
No sound from the center speaker.	SURROUND MODE switch is not set to DOLBY PRO LOGIC or DOLBY 3 STEREO	Set the switch to DOLBY PRO LOGIC or DOLBY 3 STEREO.
	CENTER MODE switch is set to PHANTOM.	Set the switch to NORMAL or WIDE.
Remote Control Unit		
Remote control impossible.	The batteries are exhausted.	Replace with new batteries.
	The remote control unit is too far from the receiver or out of the effective range.	Operate the remote control unit within the effective range.

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SPECIFICATIONS

Amplifier Section

Output Power (Front):
RMS Power (40 Hz – 20 kHz):
130 watts/8 ohms, 0.09%
Surround Output Power (0.5 % THD, 1 kHz, 8 ohms):
100 + 100 watts (Front)
100 watts (Center)
100 watts (Rear)
Total Harmonic Distortion (Front):
0.02 % (at 120 watts, 1 kHz)
Delay Time
DOLBY PRO LOGIC: 15 – 30 ms
HALL, THEATER: 15 – 50 ms
Input Sensitivity/Impedance:
PHONO: 2.5 mV/47 k ohms
LINE*: 220 mV/47 k ohms
Frequency Response:
PHONO: 20 Hz – 20 kHz, ±1 dB
LINE*: 10 Hz – 60 kHz, +1/ –3 dB
Signal-to-Noise Ratio:
PHONO: 70 dB (IHF-A)
LINE*: 90 dB (IHF-A)
Tone Control:
BASS: ± 10 dB at 100 Hz
TREBLE: ± 10 dB at 10 kHz

FM Tuner Section

(Without notes 100.1 MHz, 65 dBf)
Tuning Range:
87.5 MHz – 108.0 MHz (50 kHz steps)
Usable Sensitivity (IHF):
Mono: 15 dBf
50 dB Quieting Sensitivity:
Mono: 23 dBf
Stereo: 40 dBf
Capture Ratio:
2.0 dB
Image Rejection Ratio:
40 dB
AM Suppression Ratio: 40 dB
Total Harmonic Distortion (1 kHz):
Mono: 0.4%
Stereo: 0.5%
Frequency Response: 30 Hz – 15 kHz, +1/ –1.5 dB
Stereo Separation (1 kHz): 40 dB
Signal-to-Noise Ratio:
Mono: 65 dB
Stereo: 60 dB

AM Tuner Section

Tuning Range:
522 kHz – 1,620 kHz (9 kHz steps)
Usable Sensitivity: 55 dB/m
Total Harmonic Distortion: 0.8% at 85 dB/m
Signal-to-Noise Ratio: 45 dB at 85 dB/m

Video Section

Input Sensitivity/Impedance: 1.0 Vp-p/75 ohms
Output Level/Impedance: 1.0 Vp-p/75 ohms

General

Power Requirements:
230 V AC, 50 Hz
Power Consumption:
320 W
AC Outlets:
Switched x 2, 100 W max.
Dimensions (W x H x D): 435 x 165 x 345 mm
Weight (net): 10.0 kg
Standard Accessories:
AM Loop Antenna x 1
FM Lead-type Antenna x 1
Remote Control Unit (UR-410) x 1

* LINE means CD, VIDEO 1, VIDEO 2, DVD/VIDEO 3 and TAPE.

- Improvements may result in specifications and features changing without notice.
- Illustrations may differ slightly from production models.

LOCALIZACION DE AVERIAS

Para determinar cualquier problema en su receptor, inspeccione las causas más obvias primero. Si el problema persiste después de haber inspeccionado los ítemes abajo, consulte con su agente TEAC más cercano.

Problema	Causa probable	Remedio
Amplificador		
Cuando se escucha música en estereofónico el sonido de los altavoces izquierdo/derecho queda invertido.	Los altavoces están incorrectamente conectados.	Después de inspeccionar conéctelos correctamente otra vez.
Zumbido bajo o sonido de chicharra.	La línea de alimentación de una luz fluorescente está instalada cerca del tomacorriente de este producto.	Coloque este producto lo más lejos posible de aparatos eléctricos.
El sonido sale por un sólo canal.	Uno de los cables de entrada está desconectado.	Conecte firmemente los cables de entrada.
	El control BALANCE está ajustado en un extremo.	Ajuste el control BALANCE.
El sonido se corta durante la reproducción de la música o no es oye sonido aunque la alimentación esté ON.	La impedancia del altavoz es menor que la indicada para esta unidad.	Después de desconectar la alimentación y al conectarla otra vez, reduzca el volumen o cambie los altavoces regulados.
Sintonizador		
Se oye un silbido cuando hay sintonizada una radiodifusión estereofónica pero no se lo oye cuando se escucha en monofónico.	Se oirá un sonido de poco volumen ya que el método empleado para modulación de radiodifusiones estereofónicas de FM es diferente al usado para radiodifusiones monofónicas.	• Intente reducir el sonido aguado girando los controles de agudo. • Intente cambiar el lugar, altura y/o orientación de la antena. • Coloque el modo FM en monofónico presionando el botón STEREO/MONO. (Note que la radiodifusión se escuchará en monofónico). • Si se emplea una antena para interiores, cámbiela por una antena al aire libre. • Intente usar una antena con más elementos.
Ruido excesivo en radiodifusiones estereofónicas y monofónicas.	Ubicación y/u orientación inadecuada de a antena.	
	La radiodifusora está muy lejos.	
El sonido presenta distorsión y/o el volumen es muy bajo.	Las señales de radiodifusión tienen interferencia.	
Distorsión excesiva en el sonido de las radiodifusiones estereofónicas.	Las conexiones del sistema de altavoces son incorrectas.	
Difusión de sonido		
No se oye sonido proveniente de los altavoces traseros.	El conmutador SURROUND MODE está colocado en BYPASS.	Coloque el conmutador en el modo de difusión de sonido deseado.
No se oye sonido proveniente del altavoz central.	El conmutador SURROUND MODE no está ajustado en DOLBY PRO LOGIC o en DOLBY 3 STEREO.	Coloque el conmutador en DOLBY PRO LOGIC o en DOLBY 3 STEREO.
	El conmutador CENTER MODE está ajustado en PHANTOM.	Coloque el conmutador en NORMAL o en WIDE.
Control remoto		
El control remoto es imposible.	Las pilas están agotadas.	Reemplace por pilas nuevas.
	El control remoto está demasiado lejos del receptor o fuera de los límites de alcance.	Emplee el control remoto dentro de los límites de alcance efectivo.

ESPAÑOL

ESPECIFICACIONES

Sección del amplificador

Potencia de salida (frontal):
Potencia RMS (40 Hz - 20 kHz):
130 vatios/8 ohmios, 0,09%
Potencia de salida de difusión de sonido (0,5% THD, 1 kHz, 8 ohmios):
100 + 100 vatios (frontal)
100 vatios (central)
100 vatios (trasero)
Distorsión armónica total (frontal):
0,02% (a 120 vatios, 1 kHz)
Tiempo de retardo
DOLBY PRO LOGIC: 15 - 30 miliseg.
HALL, THEATER: 15 - 50 miliseg.
Sensibilidad/impedancia de entrada:
PHONO: 2,5mV/47 k ohmios
LINE*: 220 mV/47 k ohmios
Respuesta de frecuencia:
PHONO: 20 Hz - 20 kHz, ±1 dB
LINE*: 10 Hz - 60 kHz, +1/-3 dB
Relación señal a ruido:
PHONO: 70 dB (IHF-A)
LINE*: 90 dB (IHF-A)
Control de tono:
BASS: ±10 dB a 100 Hz
TREBLE: ±10 dB a 10 kHz

Sección del sintonizador de FM

(Sin notas 100.1 MHz, 65 dBf)
Límites de sintonización:
87.5 MHz - 108.0 MHz (pasos de 50 kHz)
Sensibilidad utilizable (IHF):
Monofónico: 15 dBf
Sensibilidad de reducción de volumen 50 dB:
Monofónico: 23 dBf
Estereofónico: 40 dBf
Relación de captura: 2 dB
Relación de rechazo de imagen: 40 dB
Relación de supresión de AM: 40 dB
Distorsión armónica total (1 kHz):
Monofónico: 0,4%
Estereofónico: 0,5%
Respuesta de frecuencia: 30 Hz - 15 kHz, +1/-1,5 dB
Separación de estéreo (1 kHz): 40 dB
Relación señal a ruido:
Monofónico: 65 dB
Estereofónico: 60 dB

Sección del sintonizador de AM

Límites de sintonización:
522 kHz - 1.620 kHz (pasos de 9 kHz)
Sensibilidad utilizable: 55 dB/m
Distorsión armónica total: 0,8% a 85 dB/m
Relación señal a ruido: 45 dB a 85 dB/m

Sección de video

Sensibilidad/impedancia de entrada: 1 Vp-p/75 ohmios
Nivel/impedancia de salida: 1 Vp-p/75 ohmios

Generalidades

Requisitos de alimentación: 230 V CA, 50 Hz
Consumo de energía: 320 W
Tomacorriente de CA:
Conmutado x 2, 100 W máx.
Dimensiones (A x Alt. x P): 435 x 165 x 345 mm
Peso (neto): 10 kg
Accesorios estándar:
Antena de cuadro de AM x 1
Antena tipo conductor de FM x 1
Control remoto (UR-410) x 1

* LINE significa CD, VIDEO 1, VIDEO 2, DVD/VIDEO 3 y TAPE.

- Las especificaciones y funciones están sujetas a cambio sin aviso para mejora.
- Las ilustraciones pueden ser levemente diferentes de los modelos de producción.

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